

## EAST Search History

## EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	10/539047	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/05 14:36
S2	1	("20040104702 ").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/01/05 14:37
S3	1	("20060241808 ").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/01/05 14:38
S4	711	(700/258).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/01/05 17:34
S5	711	(700/258).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/01/05 20:24
S6	53	S5 and speech near2 recognition	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/05 20:24
S7	712	(700/258).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/01/06 10:30
S8	2	S7 and acoustic near2 model	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 10:30
S9	712	(700/258).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/01/06 12:04
S10	3810	(hidden adj2 markov adj2 model) and (speech adj2 recognition)	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 12:06
S11	10	S9 and hidden adj2 markov adj2 model	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 12:07
S12	14	S10 and face and kalman and (pass adj2 filter)	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 12:15
S13	138	S10 and cost adj2 function	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 12:42

S14	67	S13 and direction	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 13:10
S15	13	S13 and multiple same speakers and direction	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 13:12
S16	5	S13 and multiple with speakers and direction	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 13:12
S17	7	("20030229495"   "20040054531"   "20040175006"   "6471420"   "7035418"   "7076433"   "20030103647").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 13:27
S18	20	(US-20040104702-\$ or US- 20090030552-\$ or US- 20060241808-\$ or US- 20030113002-\$ or US- 20020116196-\$ or US- 20040054531-\$ or US- 20030229495-\$ or US- 20030103647-\$).did. or (US-6862497-\$ or US- 5806036-\$ or US-6085160- \$ or US-7277831-\$ or US- 6070140-\$ or US-6292775- \$ or US-6539353-\$ or US- 6490555-\$ or US-6438519- \$ or US-7076433-\$ or US- 7035418-\$ or US-6471420- \$).did.	US-PGPUB; USPAT	OR	ON	2011/01/06 13:36
S19	5	S18 and robot	US-PGPUB; USPAT	OR	ON	2011/01/06 13:37
S20	100	(US-20090030552-\$ or US- 20100246837-\$ or US- 20020116196-\$ or US- 20020156633-\$ or US- 20030185411-\$ or US- 20050086058-\$ or US- 20080175423-\$ or US- 20030028378-\$ or US- 20050240412-\$ or US- 20060161430-\$ or US- 20090018828-\$ or US- 20090240499-\$ or US- 20010044727-\$ or US- 20020037087-\$ or US- 20020090098-\$ or US- 20020118852-\$ or US- 20050004792-\$ or US- 20050024245-\$ or US-	US-PGPUB; USPAT	OR	ON	2011/01/06 13:38

20050142522-\$ or US-  
20050165609-\$ or US-  
20050244020-\$ or US-  
20060029246-\$ or US-  
20060167681-\$ or US-  
20060182295-\$ or US-  
20060253278-\$ or US-  
20070005348-\$).did. or  
(US-20070009864-\$).did.  
or (US-5450522-\$ or US-  
5537647-\$ or US-6400989-  
\$ or US-6718043-\$ or US-  
5377302-\$ or US-6108592-  
\$ or US-6119086-\$ or US-  
6134529-\$ or US-5459815-  
\$ or US-6070140-\$ or US-  
6092040-\$ or US-6094492-  
\$ or US-6157909-\$ or US-  
6408081-\$ or US-6912500-  
\$ or US-7110951-\$ or US-  
7243060-\$ or US-7149690-  
\$ or US-5586215-\$ or US-  
5621858-\$ or US-5680481-  
\$ or US-5771306-\$ or US-  
4862509-\$ or US-4348553-  
\$ or US-5036539-\$ or US-  
6505161-\$).did. or (US-  
6598017-\$ or US-4813076-  
\$ or US-4820059-\$ or US-  
4809332-\$ or US-4827516-  
\$ or US-5381512-\$ or US-  
5274739-\$ or US-5473759-  
\$ or US-5715321-\$ or US-  
5856722-\$ or US-6012334-  
\$ or US-6227054-\$ or US-  
4366349-\$ or US-4419544-  
\$ or US-4495384-\$ or US-  
4536844-\$ or US-4802225-  
\$ or US-4905285-\$ or US-  
4985923-\$ or US-4996712-  
\$ or US-5370689-\$ or US-  
5422977-\$ or US-5483617-  
\$ or US-5549658-\$ or US-  
5749912-\$ or US-5884260-  
\$ or US-6073099-\$).did.  
or (US-6202047-\$ or US-  
6311153-\$ or US-6347299-  
\$ or US-6438243-\$ or US-  
6477490-\$ or US-6675140-  
\$ or US-6738485-\$ or US-  
6895098-\$ or US-6910013-  
\$ or US-6965863-\$ or US-  
7126509-\$ or US-7203331-  
\$ or US-7319959-\$ or US-

		7349851-\$ or US-7366656-\$ or US-7421392-\$ or US-7574357-\$ or US-7629897-\$ or US-7729907-\$ or US-7778430-\$).did.				
S21	6	S20 and robot	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 13:38
S22	4	((10/343525) or (10/451285)).APP.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/01/06 13:41
S23	20	(US-20040104702-\$ or US-20090030552-\$ or US-20060241808-\$ or US-20030113002-\$ or US-20020116196-\$ or US-20040054531-\$ or US-20030229495-\$ or US-20030103647-\$).did. or (US-6862497-\$ or US-5806036-\$ or US-6085160-\$ or US-7277831-\$ or US-6070140-\$ or US-6292775-\$ or US-6539353-\$ or US-6490555-\$ or US-6438519-\$ or US-7076433-\$ or US-7035418-\$ or US-6471420-\$).did.	US-PGPUB; USPAT	OR	ON	2011/01/06 15:25
S24	6	S23 and acoustic adj model	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 15:25
S25	67	(robot or robotic) and acoustic near2 model and pitch and harmonic and face and direction	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 16:00
S26	604	(robot or robotic) and pitch and harmonic and face and direction	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 16:03
S27	92	(robot or robotic) and speaker same direction and pitch and harmonic and face and direction	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 16:04
S28	117	speech adj2 recognition and face adj2 tracking	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 16:24
S29	40	((speech or voice) adj2 recognition) and ((face or facial) adj2 (track\$3 or localiz\$4 or locat\$3)) and (speaker with direction)	US-PGPUB; USPAT	OR	ON	2011/01/06 16:42

S30	1	("7211980").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/01/06 16:49
S31	1	(11/635041).APP.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/01/06 16:54
S32	4787	acoustic near2 model	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 19:31
S33	2972	acoustic near2 model and ((speech or voice) near2 recogni\$5)	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 19:33
S34	809	acoustic near2 model and ((speech or voice) near2 recogni\$5) and direction	US-PGPUB; USPAT; USOCR	OR	ON	2011/01/06 19:34
S38	739	(700/258).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/06/08 15:59
S39	55	S38 and speech near2 recognition	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/08 15:59
S40	739	(700/258).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/06/08 15:59
S41	2	S40 and acoustic near2 model	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/08 15:59
S45	6	robot same vision same speech and kalman adj2 filter	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/08 20:54
S46	26	robot same vision same kalman adj2 filter	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/08 21:00
S47	9	robot same vision same tracking adj2 filter	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/08 21:05
S48	84	robot same vision same filter	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/08 21:16
S49	31	S48 and kalman	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/08 21:16
S50	1	("7002617").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2011/06/09 13:59

S51	24	(US-20040104702-\$ or US-20060241808-\$ or US-20030113002-\$ or US-20020116196-\$ or US-20040054531-\$ or US-20030229495-\$ or US-20030103647-\$).did. or (US-5806036-\$ or US-6085160-\$ or US-7277831-\$ or US-6070140-\$ or US-6292775-\$ or US-6539353-\$ or US-6490555-\$ or US-6438519-\$ or US-7076433-\$ or US-7035418-\$ or US-6471420-\$ or US-7031917-\$ or US-4975960-\$ or US-6754560-\$ or US-6853880-\$ or US-6718232-\$ or US-6374155-\$).did.	US-PGPUB; USPAT	OR	ON	2011/06/19 14:07
S52	1	S51 and robot with respond	US-PGPUB; USPAT	OR	ON	2011/06/19 14:08
S53	1	S51 and robot with answer	US-PGPUB; USPAT	OR	ON	2011/06/19 14:08
S54	16	"6314410"	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/19 14:14
S55	4	speech adj2 synthes15	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/19 14:15
S56	12395	speech adj2 synthes\$10	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/19 14:15
S57	125	robot with speech adj2 synthes\$10	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/19 14:15
S58	34	robot with speech adj2 recogni\$5 same (identif\$3 or identity or name)	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/19 15:11
S59	47	robot with voice adj2 recogni\$5 same (identif\$3 or identity or name)	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/19 15:12
S60	11	robot with voice adj2 recogni\$5 and (identif\$3 or identity or name) and acoustic adj2 model	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/19 15:14
S61	32	robot and speaker near2 recogni\$5 with (identif\$3 or identity or name) and acoustic adj2 model	US-PGPUB; USPAT; USOCR	OR	ON	2011/06/19 15:17

## EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S35	1	((robot robotics autonomous) and (visual vision camera) and (auditory audio sound) and (collect collecting sense sensing receive receiving receiver transceiver) and (wave soundwave waveform) and (microphone mic mike) and (direction position orientation coordinates vector) and (pitch tone) and (extract\$3 remov\$3 isolat\$3 render\$3) and (harmonic fundamental frequency) and (face head human person appearance) and (speech vocalization word sentence speak speaking spoken talk \$3) and (acoustic) and (model equation algorithm estimat\$3 approximat\$3) and (cost function squares fit optimiz\$3 optimization best fit)). clm.	US-PGPUB; USPAT; UPAD	OR	ON	2011/06/06 15:00
S36	3	((robot robotics autonomous) and (visual vision camera) and (auditory audio sound) and (collect collecting sense sensing receive receiving receiver transceiver) and (wave soundwave waveform) and (microphone mic mike) and (direction position orientation coordinates vector)	US-PGPUB; USPAT; UPAD	OR	ON	2011/06/06 15:01

		and (pitch tone) and (extract\$3 remov\$3 isolat\$3 render\$3) and (harmonic fundamental frequency) and (face head human person appearance) and (speech vocalization word sentence speak speaking spoken talk \$3) and (model equation algorithm estimat\$3 approximat\$3) and (cost function squares fit optimiz\$3 optimization best fit)). clm.				
S37	741	(700/258).OCLS.	US-PGPUB; USPAT; UPAD	OR	OFF	2011/06/06 15:06
S42	891	((robot robotics autonomous) and (visual vision camera) and (auditory audio sound) and (collect collecting sense sensing receive receiving receiver transceiver) and (wave soundwave waveform) and (microphone mic mike) and (direction position orientation coordinates vector) and (pitch tone) and (extract\$3 remov\$3 isolat\$3 render\$3) and (harmonic fundamental frequency) and (face head human person appearance) and (speech vocalization word sentence speak speaking spoken talk \$3) and (acoustic) and (model equation algorithm estimat\$3 approximat\$3) and (cost function squares fit optimiz\$3	US-PGPUB; USPAT; UPAD	OR	ON	2011/06/08 16:53



		optimization best fit))				
S43	84	S42 and (hidden adj2 markov adj2 model)	US-PGPUB; USPAT; UPAD	OR	ON	2011/06/08 16:55
S44	90	S42 and acoustic near2 model	US-PGPUB; USPAT; UPAD	OR	ON	2011/06/08 16:59
S62	3	"Term Removed" or "Term Removed"	US-PGPUB; USPAT	OR	ON	2011/06/19 14:07

**6/19/2011 3:22:22 PM**

**C:\Documents and Settings\jedwards3\My Documents\EAST\Workspaces\700 10 539047  
ROBOTICS VISUAL AND AUDITORY SYSTEM.wsp**